Electrochimica Acta 2000 vol.45 N24, pages 3939-3942

Bimolecular reactions of electrogenerated cation radicals of arylmethylselenides

Jouikov V.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

Electrochemical oxidation of arylmethylselenides in acetonitrile in the presence of a strong proton donor follows an E+C2 scheme contrariwise to E+C1+E scheme for the oxidation of alkylarylselenides under non-protic conditions. The reaction constants of first and second order potential determining reactions of electrogenerated cation radicals have different signs which, given the electron transfer reaction constant being the same in both cases, determines different sensitivity of the apparent oxidation potential E1/2 towards the ring substitution.